Journal of Nuclear Materials 184 (1991) 235–236
North-Holland

Author index

Allain, Y., see Le, T.N. 184 (1991) 230
Andre, G., see Le, T.N. 184 (1991) 230

Bernardin, M., see Emeruwa, E. 184 (1991) 53
Blomquist, R.A., see Leibowitz, L. 184 (1991) 47
Blomquist, R.A., see Leibowitz, L. 184 (1991) 59
Boas, J.F., see Caulfield, K.J. 184 (1991) 150
Butterworth, G.J., Activation characteristics and waste management options for some candidate tritium breeders 184 (1991) 197

Caulfield, K.J., R. Cooper and J.F. Boas, Threshold for displacement defect production in electron-irradiated alumina 184 (1991) 150
Clinard, Jr., F.W., see Weber, W.J. 184 (1991) 1
Cooper, R., see Caulfield, K.J. 184 (1991) 150

Eckstein, W., see László, J. 184 (1991) 22
Einziger, R.E., see Thomas, L.E. 184 (1991) 117
Emeruwa, E., J. Jarrige, J. Mexmain and M. Bernardin, Application of mercury porosimetry to powder (UO_2) analysis 184 (1991) 53

Fett, T., W. Hartlieb, K. Keller, B. Knecht, D. Munz and W. Rieger, Subcritical crack growth in high-grade alumina 184 (1991) 39

Gotoh, K., see Miyake, C. 184 (1991) 212

Hartlieb, W., see Fett, T. 184 (1991) 39
Hensel, W. and E. Hoinkis, The diffusion of Sr in the graphitic Matrix A3-3 in vacuum and in the presence of hydrogen 184 (1991) 88
Hoinkis, E., see Hensel, W. 184 (1991) 88
Hsu, S.S., S.C. Tsai, J.J. Kai and C.H. Tsai, SCC behavior and anodic dissolution of Inconel 600 in low concentration thiosulfate 184 (1991) 97

Jarrige, J., see Emeruwa, E. 184 (1991) 53

Kai, J.J., see Hsu, S.S. 184 (1991) 97
Kapinos, V.G., Yu.N. Osetskii and P.A. Platonov, Simulation of defect cascade collapse in hcp zirconium 184 (1991) 127
Kapinos, V.G., Yu.N. Osetskii and P.A. Platonov, The effect of increased vacancy mobility in the depleted cascade zones 184 (1991) 221
Keller, K., see Fett, T. 184 (1991) 39
Kitagawa, M., see Naito, K. 184 (1991) 30
Knecht, B., see Fett, T. 184 (1991) 39
Kuk, I.-H., see Rhee, C.-K. 184 (1991) 146
Kuk, I.-H., see Rhee, C.-K. 184 (1991) 161
Kuzminov, D.B., Gas release from cobalt undergoing solid state phase transformation 184 (1991) 113

László, J. and W. Eckstein, Sputtering and reflection from lithium, gallium and indium 184 (1991) 22
Le, T.N., N. Lorenzelli, L. Zuppiroli, Y. Allain and G. Andre, A characterization of UN fine microstructure 184 (1991) 230
Leibowitz, L. and R.A. Blomquist, Thermodynamics and phase equilibria of the iron–uranium system 184 (1991) 47
Leibowitz, L., R.A. Blomquist and A.D. Pelton, Thermodynamic modeling of the phase equilibria of the plutonium–uranium system 184 (1991) 59
Lewis, B.J. and H.E. Sills, Fission-product transport and the diffusion approximation 184 (1991) 107
Lorenzelli, N., see Le, T.N. 184 (1991) 230

Mansur, L.K., see Weber, W.J. 184 (1991) 1
Matsui, T., see Naito, K. 184 (1991) 30
Mexmain, J., see Emeruwa, E. 184 (1991) 53
Miyake, C. and K. Gotoh, Magnetic study of Zircaloy. (II) Zircaloy with additive of niobium 184 (1991) 212
Mori, T., see Sato, A. 184 (1991) 144
Munz, D., see Fett, T. 184 (1991) 39
Mutoh, I., see Suzuki, T. 184 (1991) 81

Naito, K., T. Matsui, H. Nakahira, M. Kitagawa and H. Okada, Recovery and mutual separation of noble metals from the simulated insoluble residue of spent fuel 184 (1991) 30
Nakahira, H., see Naito, K. 184 (1991) 30

Okada, H., see Naito, K. 184 (1991) 30
Osetskii, Yu.N., see Kapinos, V.G. 184 (1991) 127
Osetskii, Yu.N., see Kapinos, V.G. 184 (1991) 221

Parkin, D.M., see Weber, W.J. 184 (1991) 1
Pells, G.P., Radiation-induced degradation of the intrinsic electrical conductivity of $MgAl_2O_4$ and Al_2O_3 184 (1991) 177
Pells, G.P., Radiation-induced electrical conductivity in $MgAl_2O_4$ spinel 184 (1991) 183
Pelton, A.D., see Leibowitz, L. 184 (1991) 59
Platonov, P.A., see Kapinos, V.G. 184 (1991) 127
Platonov, P.A., see Kapinos, V.G. 184 (1991) 221
Pyun, S.-I., see Rhee, C.-K. 184 (1991) 146
Pyun, S.-I., see Rhee, C.-K. 184 (1991) 161

Rhee, C.-K., S.-I. Pyun and I.-H. Kuk, Phase formation and growth at interface between U_3Si and aluminium 184 (1991) 161
Rhee, C.-K., S.-I. Pyun and I.-H. Kuk, The kinetics of the peritectoid reaction $3U + U_3Si_2 \rightarrow 2U_3Si$ as a function of size of parent U_3Si_2 precipitate in the uranium matrix 184 (1991) 146
Richter, K. and C. Sari, Investigation of the operational limits of uranium–plutonium nitride fuels 184 (1991) 167
Rieger, W., see Fett, T. 184 (1991) 39

Sakairi, H., see Uedono, A. 184 (1991) 191
Sarce, A., Prediction of the behaviour of ZrC particles in a Zr–2.5 wt% Nb alloy under irradiation 184 (1991) 152
Sari, C., see Richter, K. 184 (1991) 167
Sato, A., M. Suzuki and T. Mori, Further analysis on the stress-assisted nucleation of interstitial loops in an electron-irradiated Fe–18Cr–14Ni alloy 184 (1991) 144
Sills, H.E., see Lewis, B.J. 184 (1991) 107
Slagle, O.D., see Thomas, L.E. 184 (1991) 117
Suzuki, M., see Sato, A. 184 (1991) 144
Suzuki, T. and I. Mutoh, Corrosion of a Type 304 stainless steel and a molybdenum-base TZM alloy in refluxing mercury with a small amount of potassium 184 (1991) 81

Tanigawa, S., see Uedono, A. 184 (1991) 191
Taylor, D.F., An oxide-semiconductance model of nodular corrosion and its application to zirconium alloy development 184 (1991) 65
Thomas, L.E., O.D. Slagle and R.E. Einziger, Nonuniform oxidation of LWR spent fuel in air 184 (1991) 117
Tsai, C.H., see Hsu, S.S. 184 (1991) 97
Tsai, S.C., see Hsu, S.S. 184 (1991) 97

Uedono, A., S. Tanigawa and H. Sakairi, Release processes of He implanted in Cu and Ni studied by a monoenergetic positron beam 184 (1991) 191

Weber, W.J., L.K. Mansur, F.W. Clinard, Jr. and D.M. Parkin, Radiation effects on materials in high-radiation environments: A workshop summary 184 (1991) 1

Zuppiroli, L., see Le, T.N. 184 (1991) 230

Journal of Nuclear Materials 184 (1991) 237–240
North-Holland

Subject index

Alloys *("Various", i.e. not listed elsewhere by name)*
Recovery and mutual separation of noble metals from the simulated insoluble residue of spent fuel, K. Naito, T. Matsui, H. Nakahira, M. Kitagawa and H. Okada 184 (1991) 30

Aluminium, Aluminium Alloys and Compounds
Subcritical crack growth in high-grade alumina, T. Fett, W. Hartlieb, K. Keller, B. Knecht, D. Munz and W. Rieger 184 (1991) 39
Phase formation and growth at interface between U_3Si and aluminium, C.-K. Rhee, S.-I. Pyun and I.-H. Kuk 184 (1991) 161

Analytical Instruments and Methods
Release processes of He implanted in Cu and Ni studied by a monoenergetic positron beam, A. Uedono, S. Tanigawa and H. Sakairi 184 (1991) 191
A characterization of UN fine microstructure, T.N. Le, N. Lorenzelli, L. Zuppiroli, Y. Allain and G. Andre 184 (1991) 230

Blanket Materials
Activation characteristics and waste management options for some candidate tritium breeders, G.J. Butterworth 184 (1991) 197

Ceramics *("Various", i.e. not listed elsewhere by name)*
Radiation effects on materials in high-radiation environments: A workshop summary, W.J. Weber, L.K. Mansur, F.W. Clinard, Jr. and D.M. Parkin 184 (1991) 1
Threshold for displacement defect production in electron-irradiated alumina, K.J. Caulfield, R. Cooper and J.F. Boas 184 (1991) 150
Radiation-induced degradation of the intrinsic electrical conductivity of $MgAl_2O_4$ and Al_2O_3, G.P. Pells 184 (1991) 177
Radiation-induced electrical conductivity in $MgAl_2O_4$ spinel, G.P. Pells 184 (1991) 183
Release processes of He implanted in Cu and Ni studied by a monoenergetic positron beam, A. Uedono, S. Tanigawa and H. Sakairi 184 (1991) 191

Cladding Materials
Magnetic study of Zircaloy. (II) Zircaloy with additive of niobium, C. Miyake and K. Gotoh 184 (1991) 212

Compatibility and Corrosion
Subcritical crack growth in high-grade alumina, T. Fett, W. Hartlieb, K. Keller, B. Knecht, D. Munz and W. Rieger 184 (1991) 39
An oxide-semiconductance model of nodular corrosion and its application to zirconium alloy development, D.F. Taylor 184 (1991) 65
Corrosion of a Type 304 stainless steel and a molybdenum-base TZM alloy in refluxing mercury with a small amount of potassium, T. Suzuki and I. Mutoh 184 (1991) 81
SCC behavior and anodic dissolution of Inconel 600 in low concentration thiosulfate, S.S. Hsu, S.C. Tsai, J.J. Kai and C.H. Tsai 184 (1991) 97
Nonuniform oxidation of LWR spent fuel in air, L.E. Thomas, O.D. Slagle and R.E. Einziger 184 (1991) 117
The kinetics of the peritectoid reaction $3U + U_3Si_2 \rightarrow 2U_3Si$ as a function of size of parent U_3Si_2 precipitate in the uranium matrix, C.-K. Rhee, S.-I. Pyun and I.-H. Kuk 184 (1991) 146

Computer Calculations, including Modelling
Sputtering and reflection from lithium, gallium and indium, J. László and W. Eckstein 184 (1991) 22
An oxide-semiconductance model of nodular corrosion and its application to zirconium alloy development, D.F. Taylor 184 (1991) 65
Simulation of defect cascade collapse in hcp zirconium, V.G. Kapinos, Yu.N. Osetskii and P.A. Platonov 184 (1991) 127
The effect of increased vacancy mobility in the depleted cascade zones, V.G. Kapinos, Yu.N. Osetskii and P.A. Platonov 184 (1991) 221

Constitution
Phase formation and growth at interface between U_3Si and aluminium, C.-K. Rhee, S.-I. Pyun and I.-H. Kuk 184 (1991) 161

Defects and Defect Structures
Radiation effects on materials in high-radiation environments: A workshop summary, W.J. Weber, L.K. Mansur, F.W. Clinard, Jr. and D.M. Parkin 184 (1991) 1
Threshold for displacement defect production in electron-irradiated alumina, K.J. Caulfield, R. Cooper and J.F. Boas 184 (1991) 150
Release processes of He implanted in Cu and Ni studied by a monoenergetic positron beam, A. Uedono, S. Tanigawa and H. Sakairi 184 (1991) 191
The effect of increased vacancy mobility in the depleted cascade zones, V.G. Kapinos, Yu.N. Osetskii and P.A. Platonov 184 (1991) 221

Diffusion *(incl. Thermodiffusion)*
The diffusion of Sr in the graphitic Matrix A3-3 in vacuum and in the presence of hydrogen, W. Hensel and E. Hoinkis 184 (1991) 88
Fission-product transport and the diffusion approximation, B.J. Lewis and H.E. Sills 184 (1991) 107
Phase formation and growth at interface between U_3Si and aluminium, C.-K. Rhee, S.-I. Pyun and I.-H. Kuk 184 (1991) 161

Divertor
Sputtering and reflection from lithium, gallium and indium, J. László and W. Eckstein 184 (1991) 22

Electrical Properties
Threshold for displacement defect production in electron-irradiated alumina, K.J. Caulfield, R. Cooper and J.F. Boas 184 (1991) 150
Radiation-induced degradation of the intrinsic electrical conductivity of $MgAl_2O_4$ and Al_2O_3, G.P. Pells 184 (1991) 177
Radiation-induced electrical conductivity in $MgAl_2O_4$ spinel, G.P. Pells 184 (1991) 183

Experimental Techniques
Radiation effects on materials in high-radiation environments: A workshop summary, W.J. Weber, L.K. Mansur, F.W. Clinard, Jr. and D.M. Parkin 184 (1991) 1

Fast Reactors
Radiation effects on materials in high-radiation environments: A workshop summary, W.J. Weber, L.K. Mansur, F.W. Clinard, Jr. and D.M. Parkin 184 (1991) 1
Investigation of the operational limits of uranium–plutonium nitride fuels, K. Richter and C. Sari 184 (1991) 167

Fission Products
Recovery and mutual separation of noble metals from the simulated insoluble residue of spent fuel, K. Naito, T. Matsui, H. Nakahira, M. Kitagawa and H. Okada 184 (1991) 30
Fission-product transport and the diffusion approximation, B.J. Lewis and H.E. Sills 184 (1991) 107

Fracture and Fracture Toughness
Subcritical crack growth in high-grade alumina, T. Fett, W. Hartlieb, K. Keller, B. Knecht, D. Munz and W. Rieger 184 (1991) 39

Fuels and Fuel Elements
Recovery and mutual separation of noble metals from the simulated insoluble residue of spent fuel, K. Naito, T. Matsui, H. Nakahira, M. Kitagawa and H. Okada 184 (1991) 30
Fission-product transport and the diffusion approximation, B.J. Lewis and H.E. Sills 184 (1991) 107
Nonuniform oxidation of LWR spent fuel in air, L.E. Thomas, O.D. Slagle and R.E. Einziger 184 (1991) 117
Investigation of the operational limits of uranium–plutonium nitride fuels, K. Richter and C. Sari 184 (1991) 167

Fusion Reactors
Radiation effects on materials in high-radiation environments: A workshop summary, W.J. Weber, L.K. Mansur, F.W. Clinard, Jr. and D.M. Parkin 184 (1991) 1
Sputtering and reflection from lithium, gallium and indium, J. László and W. Eckstein 184 (1991) 22
Corrosion of a Type 304 stainless steel and a molybdenum-base TZM alloy in refluxing mercury with a small amount of potassium, T. Suzuki and I. Mutoh 184 (1991) 81
Activation characteristics and waste management options for some candidate tritium breeders, G.J. Butterworth 184 (1991) 197

Gases *(excl. Tritium)* **in Metals, Alloys and Ceramics**
Gas release from cobalt undergoing solid state phase transformation, D.B. Kuzminov 184 (1991) 113

Graphite and Carbon
The diffusion of Sr in the graphitic Matrix A3-3 in vacuum and in the presence of hydrogen, W. Hensel and E. Hoinkis 184 (1991) 88

Helium
Release processes of He implanted in Cu and Ni studied by a monoenergetic

positron beam, A. Uedono, S. Tanigawa and H. Sakairi 184 (1991) 191

High-Temperature Reactors
The diffusion of Sr in the graphitic Matrix A3-3 in vacuum and in the presence of hydrogen, W. Hensel and E. Hoinkis 184 (1991) 88

Hydrogen and Hydrides *(incl. Deuterium and Deuterides)*
Sputtering and reflection from lithium, gallium and indium, J. László and W. Eckstein 184 (1991) 22
The diffusion of Sr in the graphitic Matrix A3-3 in vacuum and in the presence of hydrogen, W. Hensel and E. Hoinkis 184 (1991) 88

Iron and Iron Alloys *(excl. Steels)*
Thermodynamics and phase equilibria of the iron–uranium system, L. Leibowitz and R.A. Blomquist 184 (1991) 47

Irradiation Effects *(excl. Swelling and Voids)*
Gas release from cobalt undergoing solid state phase transformation, D.B. Kuzminov 184 (1991) 113
Simulation of defect cascade collapse in hcp zirconium, V.G. Kapinos, Yu.N. Osetskii and P.A. Platonov 184 (1991) 127
Further analysis on the stress-assisted nucleation of interstitial loops in an electron-irradiated Fe–18Cr–14Ni alloy, A. Sato, M. Suzuki and T. Mori 184 (1991) 144
Radiation-induced degradation of the intrinsic electrical conductivity of $MgAl_2O_4$ and Al_2O_3, G.P. Pells 184 (1991) 177
Radiation-induced electrical conductivity in $MgAl_2O_4$ spinel, G.P. Pells 184 (1991) 183
The effect of increased vacancy mobility in the depleted cascade zones, V.G. Kapinos, Yu.N. Osetskii and P.A. Platonov 184 (1991) 221

Kinetics
The kinetics of the peritectoid reaction $3U + U_3Si_2 \rightarrow 2U_3Si$ as a function of size of parent U_3Si_2 precipitate in the uranium matrix, C.-K. Rhee, S.-I. Pyun and I.-H. Kuk 184 (1991) 146

Limiter
Sputtering and reflection from lithium, gallium and indium, J. László and W. Eckstein 184 (1991) 22

Liquid Metals
Corrosion of a Type 304 stainless steel and a molybdenum-base TZM alloy in refluxing mercury with a small amount of potassium, T. Suzuki and I. Mutoh 184 (1991) 81

Microstructure *(incl. Textures)*
The kinetics of the peritectoid reaction $3U + U_3Si_2 \rightarrow 2U_3Si$ as a function of size of parent U_3Si_2 precipitate in the uranium matrix, C.-K. Rhee, S.-I. Pyun and I.-H. Kuk 184 (1991) 146

Molybdenum and Molybdenum Alloys
Corrosion of a Type 304 stainless steel and a molybdenum-base TZM alloy in refluxing mercury with a small amount of potassium, T. Suzuki and I. Mutoh 184 (1991) 81

Nickel and Nickel Alloys
SCC behavior and anodic dissolution of Inconel 600 in low concentration thiosulfate, S.S. Hsu, S.C. Tsai, J.J. Kai and C.H. Tsai 184 (1991) 97
Release processes of He implanted in Cu and Ni studied by a monoenergetic positron beam, A. Uedono, S. Tanigawa and H. Sakairi 184 (1991) 191

Phase Transformation
Prediction of the behaviour of ZrC particles in a Zr–2.5 wt% Nb alloy under irradiation, A. Sarce 184 (1991) 152
Magnetic study of Zircaloy. (II) Zircaloy with additive of niobium, C. Miyake and K. Gotoh 184 (1991) 212

Physical Properties *("Various", i.e. not listed elsewhere by name)*
Magnetic study of Zircaloy. (II) Zircaloy with additive of niobium, C. Miyake and K. Gotoh 184 (1991) 212

Plutonium, Plutonium Alloys and Compounds
Thermodynamics and phase equilibria of the iron–uranium system, L. Leibowitz and R.A. Blomquist 184 (1991) 47
Thermodynamic modeling of the phase equilibria of the plutonium–uranium system, L. Leibowitz, R.A. Blomquist and A.D. Pelton 184 (1991) 59
Investigation of the operational limits of uranium–plutonium nitride fuels, K. Richter and C. Sari 184 (1991) 167

Pore Behaviour and Porosity
Application of mercury porosimetry to powder (UO_2) analysis, E. Emeruwa, J. Jarrige, J. Mexmain and M. Bernardin 184 (1991) 53

Powder Processes and Products
Subcritical crack growth in high-grade alumina, T. Fett, W. Hartlieb, K. Keller, B. Knecht, D. Munz and W. Rieger 184 (1991) 39
Application of mercury porosimetry to powder (UO_2) analysis, E. Emeruwa, J. Jarrige, J. Mexmain and M. Bernardin 184 (1991) 53

Pressure Vessels
Radiation effects on materials in high-radiation environments: A workshop summary, W.J. Weber, L.K. Mansur, F.W. Clinard, Jr. and D.M. Parkin 184 (1991) 1

Reprocessing
Recovery and mutual separation of noble metals from the simulated insoluble residue of spent fuel, K. Naito, T. Matsui, H. Nakahira, M. Kitagawa and H. Okada 184 (1991) 30

Steels
Corrosion of a Type 304 stainless steel and a molybdenum-base TZM alloy in refluxing mercury with a small amount of potassium, T. Suzuki and I. Mutoh 184 (1991) 81
Further analysis on the stress-assisted nucleation of interstitial loops in an electron-irradiated Fe–18Cr–14Ni alloy, A. Sato, M. Suzuki and T. Mori 184 (1991) 144

Structural Materials
Radiation effects on materials in high-radiation environments: A workshop summary, W.J. Weber, L.K. Mansur, F.W. Clinard, Jr. and D.M. Parkin 184 (1991) 1

Surface Effects and Characterization Techniques
Sputtering and reflection from lithium, gallium and indium, J. László and W. Eckstein 184 (1991) 22

Thermal Reactors
Radiation effects on materials in high-radiation environments: A workshop summary, W.J. Weber, L.K. Mansur, F.W. Clinard, Jr. and D.M. Parkin 184 (1991) 1

Thermodynamic Properties
Thermodynamics and phase equilibria of the iron–uranium system, L. Leibowitz and R.A. Blomquist 184 (1991) 47
Thermodynamic modeling of the phase equilibria of the plutonium–uranium system, L. Leibowitz, R.A. Blomquist and A.D. Pelton 184 (1991) 59

Tritium
Sputtering and reflection from lithium, gallium and indium, J. László and W. Eckstein 184 (1991) 22

Uranium and Uranium Alloys
Application of mercury porosimetry to powder (UO_2) analysis, E. Emeruwa, J. Jarrige, J. Mexmain and M. Bernardin 184 (1991) 53
Thermodynamic modeling of the phase equilibria of the plutonium–uranium system, L. Leibowitz, R.A. Blomquist and A.D. Pelton 184 (1991) 59
The kinetics of the peritectoid reaction $3U + U_3Si_2 \rightarrow 2U_3Si$ as a function of size of parent U_3Si_2 precipitate in the uranium matrix, C.-K. Rhee, S.-I. Pyun and I.-H. Kuk 184 (1991) 146
Phase formation and growth at interface between U_3Si and aluminium, C.-K. Rhee, S.-I. Pyun and I.-H. Kuk 184 (1991) 161

Uranium Ceramics
Fission-product transport and the diffusion approximation, B.J. Lewis and H.E. Sills 184 (1991) 107
Investigation of the operational limits of uranium–plutonium nitride fuels, K. Richter and C. Sari 184 (1991) 167
A characterization of UN fine microstructure, T.N. Le, N. Lorenzelli, L. Zuppiroli, Y. Allain and G. Andre 184 (1991) 230

Wastes *(radioactive)*
Radiation effects on materials in high-radiation environments: A workshop summary, W.J. Weber, L.K. Mansur, F.W. Clinard, Jr. and D.M. Parkin 184 (1991) 1
Nonuniform oxidation of LWR spent fuel in air, L.E. Thomas, O.D. Slagle and R.E. Einziger 184 (1991) 117

Zirconium, Zirconium Alloys and Compounds
An oxide-semiconductance model of nodular corrosion and its application to zirconium alloy development, D.F. Taylor 184 (1991) 65
Prediction of the behaviour of ZrC particles in a Zr–2.5 wt% Nb alloy under irradiation, A. Sarce 184 (1991) 152
Magnetic study of Zircaloy. (II) Zircaloy with additive of niobium, C. Miyake and K. Gotoh 184 (1991) 212